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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,020	01/15/2002	Ari Tourunen	P 290450 2010028US/SM	7874
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PILLSBURY WINTHROP SHAW PITTMAN, LLP			EXAMINER	
P.O. BOX 10500			MATTIS, JASON E	
MCLEAN, VA 22102			ART UNIT	PAPER NUMBER
			2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/045,020	<b>Applicant(s)</b> TOURUNEN ET AL.	
	<b>Examiner</b> Jason E. Mattis	<b>Art Unit</b> 2616	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-16 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/02, 6/02</u> . | 6) <input type="checkbox"/> Other: ____.  |

### DETAILED ACTION

1. Claims 1, 7, 9-11, and 14-16 objected to because of the following informalities:

With respect to claims 1, 11, 15, and 16, each of these claims contains the phrase "can be". This phrase is language that suggests or makes optional, but does not require an action to be performed. It is suggested that this phrase be removed from the claims, such that the limitations that follow it are not optional.

With respect to claims 7 and 14, these claims both contain the phrase "said instructions". There is not antecedent basis for "said instructions". It is recommended that the claims be amended such that an antecedent basis is provided for "said instructions". Claims 7 and 14 also contain the phrase "such as". This phrase is indefinite since it is not clear what exactly is meant by "such as a PECP entity or an RLC entity". It is recommended that the phrase "such as" be removed from the claims.

With respect to claim 9, this claim contains the phrases "the PDCP entity" and "the packet data convergence protocol layer". There is no antecedent basis for either of these phrases in the claims. It is recommended that the claims be amended such that an antecedent basis is provided for these phrases.

With respect to claim 10, this claim contains the phrases "the logical connections" "the mobile station" and "the network element". There is not antecedent basis for these phrases. It is recommended that the claims be amended such that an antecedent basis is provided for these phrases.

Please check to claim for any other antecedent basis problems that might be present.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 5-6, 10-12, and 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Irvin et al. (U.S. Pat. 6381713 B1).

With respect to claims 1, 11, 15, and 16, Irvin et al. discloses a packet radio system including a mobile station and method for arranging error control of packet-switched data, wherein at least a first part and a second part can be separated from the packets (See the abstract, column 11 line 42 to column 12 line 11, and Figure 1 of Irvin et al. for reference to a wireless packet data system including mobile stations that operates a method of arranging error control of packets that are separated into different fields). Irvin et al. also discloses determining conditions that apply for the processing of the first part and the second part in an error situation (See column 6 lines 20-67 and

Figure 3 of Irvin et al. for reference to determining and cataloging conditions to use for processing data packets that have errors in a specified packet data field). Irvin et al. further discloses detecting errors in received data (See column 7 lines 1-11 and Figure 4 of Irvin et al. for reference to determining which, if any, fields or portions of information in a received packet are flawed). Irvin et al. also discloses checking whether conditions to allow an erroneous first and/or second part to be transmitted to upper protocol layers (See column 7 lines 12-35 and Figure 4 of Irvin et al. for reference to determining if the location of the error allows the packet to be passed up the protocol stack). Irvin et al. further discloses transmitting the first and/or second part to the upper protocol layers in response to conditions allowing it (See column 7 lines 12-35 and Figure 4 of Irvin et al. for reference to passing a packet up the protocol stack if conditions allow for it).

With respect to claims 2 and 12, Irvin et al. discloses that the first part comprises header fields and the second part comprise payload data (See column 6 lines 1-19 and Figure 3 of Irvin et al. for reference to a packet being divided into header fields 320 and a payload 350).

With respect to claim 5, Irvin et al. discloses indicating to upper layers an error detected in the first and/or second part of the packets (See column 7 lines 1-11 and Figure 4 of Irvin et al. for reference to indicating detection of an error and the location of the detected error in steps 430 and 460).

With respect to claim 6, Irvin et al. discloses that an error indication is added to erroneous data units and it is checked whether the data units meet the conditions (See column 7 lines 1-11 and Figure 4 of Irvin et al. for reference to indicating detection of an

error and the location of the detected error in steps 430 and 460 and for reference to determining whether conditions allowing the packet to be passed up the protocol stack are met).

With respect to claim 10, Irvin et al. discloses that different conditions apply for the mobile station a mobile station than for a network element (See column 6 lines 20-59 for reference to the conditions being set in a database that may be different for each processing unit).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irvin et al. in view of Ojard et al. (U.S. Pat. 6266350 B1).

With respect to claims 4 and 13, Irvin et al. does not disclose that the first and second part are separated and transmitted on different logical channels.

With respect to claims 4 and 13, Ojard et al., in the field of communications, discloses separating a first and second part of a packet and transmitting the parts on different logical channels (See column 9 lines 29-44 of Ojard et al. for reference to

separating a header part and a payload part of a packet and transmitting the header in a separate sub-channel from the payload). Separating a first and second part of a packet and transmitting the parts on different logical channels has the advantage of allowing a change in the data of one of the parts to not effect the data rate and transmission quality of the other part, since the two parts are transmitted on separate channels.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Ojard et al., to combine separating a first and second part of a packet and transmitting the parts on different logical channels, as suggested by Ojard et al., with the system and method of Irvin et al., with the motivation being to allow a change in the data of one of the parts to not effect the data rate and transmission quality of the other part, since the two parts are transmitted on separate channels.

6. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irvin et al. in view of Shin (U.S. Pat. 6738634).

With respect to claims 7 and 14, Irvin et al. does not disclose using a radio resource control protocol to management radio resources and determine instructions and using an RLC entity to carry out an error check.

With respect to claims 7 and 14, Shin, in the field of communications, discloses using a radio resource control protocol to management radio resources and determine instructions and using an RLC entity to carry out an error check (See column 1 lines 16-65, column 2 lines 11-17 and Figure 1 of Shin for reference using a radio resource

control protocol to send instructions and for reference to using an RLC entity to perform error detection and correction). Using a radio resource control protocol to management radio resources and determine instructions and using an RLC entity to carry out an error check has the advantage of providing error protection in a widely used GSM system.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Shin, to combine using a radio resource control protocol to management radio resources and determine instructions and using an RLC entity to carry out an error check, as suggested by Shin, with the system and method of Irvin et al., with the motivation being to provide error protection in a widely used GSM system.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Irvin et al. in view of Ojard et al. as applied to claims 4 and 13 above, and further in view of Shin.

With respect to claim 9, the combination of Irvin et al. and Ojard et al. does not disclose handling logical connection by an RLC entity.

With respect to claims 7 and 14, Shin, in the field of communications, discloses handling logical connection by an RLC entity (See column 1 line 66 to column 2 line 10 of Shin for reference using an RLC entity to control logical connections). Using an RLC entity to control logical connections has the advantage of providing error protection in a widely used GSM system.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Shin, to combine using an RLC entity to



control logical connections, as suggested by Shin, with the system and method of Irvin et al. and Ojard et al., with the motivation being to provide error protection in a widely used GSM system.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Irvin et al. in view of Svanbro et al. (U.S. Pat. 6967964 B1).

With respect to claim 9, Irvin et al. does not disclose using a PDCP entity to separate a packet and check for errors.

With respect to claim 9, Svanbro et al., in the field of communications, discloses using a PDCP entity to separate a packet and check for errors (See column 3 line 57 to column 5 line 20 of Svanbro et al. for reference to using PDCP entities to separate packet headers and perform error checking). Using a PDCP entity to separate a packet and check for errors has the advantage of providing error protection in a widely used GSM system.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Svanbro et al., to combine using a PDCP entity to separate a packet and check for errors, as suggested by Svanbro et al., with the system and method of Irvin et al., with the motivation being to provide error protection in a widely used GSM system.

***Allowable Subject Matter***

9. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: Claim 3 would be allowable since none of the prior art of record discloses or renders obvious using header fields for decompression even if the conditions prevented their transmission to upper layer, as claimed.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E. Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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**HUY D. VU**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**